

LISTING OF THE CLAIMS

1. (previously presented) A composition comprising a biologically effective amount of at least one tetraalkylammonium tetrathiomolybdate compound and a pharmaceutically acceptable excipient.
2. (previously presented) The composition of claim 1, wherein said compound is tetramethylammonium tetrathiomolybdate.
3. (previously presented) The composition of claim 1, wherein said compound is tetraethylammonium tetrathiomolybdate.
4. (previously presented) The composition of claim 1, wherein said compound is tetrabutylammonium tetrathiomolybdate.
5. (previously presented) The composition of claim 1, wherein said compound is tetrapropylammonium tetrathiomolybdate.
6. (previously presented) The composition of claim 1 or 5, wherein said composition is formulated for intravenous administration.
7. (previously presented) The composition of claim 1 or 5, wherein said composition is formulated for ophthalmic administration.
8. (previously presented) The composition of claim 1 or 5, wherein said composition is formulated for oral administration.
9. (previously presented) The composition of claim 1 or 5, further comprising a therapeutic agent different from said tetraalkylammonium tetrathiomolybdate compound.
10. (original) The composition of claim 9, further comprising a zinc compound.
11. (previously presented) The composition of claim 9, wherein the therapeutic agent is an anti-angiogenic agent.
12. (previously presented) The composition of claim 11, wherein the anti-angiogenic agent is selected from the group consisting of angiostatin, endostatin, trientine, pencillamine, and zinc.

13. (previously presented) The composition of claim 9, wherein the therapeutic agent is an anti-cancer agent.

14. (previously presented) The composition of claim 13, wherein the anti-cancer agent is selected from the group consisting of a chemotherapeutic agent, radiotherapeutic agent, immunotoxin, anti-angiogenic agent, apoptosis-inducing agent, a distinct agent that binds copper, and a zinc compound.

15. (previously presented) A composition comprising a pharmaceutically acceptable excipient and a tetraalkylammonium tetrathiomolybdate compound in which the alkyl groups protect the tetrathiomolybdate from oxidation upon exposure to air and moisture, thereby increasing the stability of the tetraalkylammonium tetrathiomolybdate compound relative to ammonium tetrathiomolybdate; wherein said tetraalkylammonium tetrathiomolybdate compound retains solubility and releases substantially biologically active tetrathiomolybdate and substantially biologically inert alkylammonium groups in aqueous solution.

16. (previously presented) A composition comprising a biologically effective amount of a tetraalkylammonium tetrathiomolybdate compound and a pharmaceutically acceptable excipient; wherein said tetraalkylammonium tetrathiomolybdate compound is substantially stable in moist heated air for at least 7 days; has a half life when exposed to air at room temperature of at least twice that of ammonium tetrathiomolybdate; is soluble to at least 1 mg/ml in water; and in aqueous solution releases tetrathiomolybdate having substantially intact copper binding properties.

17. (original) A composition comprising a biologically effective amount of tetrapropylammonium tetrathiomolybdate and a pharmaceutically acceptable excipient.

18. (previously presented) A kit comprising, in at least one container, a therapeutically effective amount of at least one tetraalkylammonium tetrathiomolybdate compound and: (a) a therapeutically effective amount of at least a therapeutic agent that is different from said tetraalkylammonium tetrathiomolybdate compound; or (b) at least one component of an assay system for determining serum ceruloplasmin levels.

19. (previously presented) The kit of claim 18, wherein said at least one tetraalkylammonium tetrathiomolybdate compound is disposed in a pharmaceutically acceptable composition.

20. (previously presented) The kit of claim 18, wherein said at least one tetraalkylammonium tetrathiomolybdate compound is tetrapropylammonium tetrathiomolybdate.

21. (previously presented) The kit of claim 18, wherein said kit comprises said at least one tetraalkylammonium tetrathiomolybdate compound and said therapeutic agent.

22. (previously presented) The kit of claim 21, wherein said therapeutic agent is a zinc compound or an anti-angiogenic agent.

23. (previously presented) The kit of claim 21, wherein said therapeutic agent is an anti-cancer agent.

24. (previously presented) The kit of claim 21, wherein said at least one tetraalkylammonium tetrathiomolybdate compound and said therapeutic agent are comprised within a single container.

25. (previously presented) The kit of claim 21, wherein said at least one tetraalkylammonium tetrathiomolybdate compound and said therapeutic agent are comprised within distinct containers.

26. (previously presented) The kit of claim 18, wherein said kit comprises said at least one tetraalkylammonium tetrathiomolybdate compound and said component of an assay system for determining serum ceruloplasmin levels.

27. (original) The kit of claim 26, wherein said kit further comprises all components of an assay system for determining serum ceruloplasmin levels.

28-50. (canceled)